Patent Application No. 10/796,028

Response to Office Action of October 18, 2004

Docket No.: 1743/231

IN THE CLAIMS:

1-40. (canceled)

41. (previously presented) A service method for use with a manufacturing apparatus for manufacturing products including a semiconductor wafer, a semiconductor device, an exposure mask or a liquid crystal device, comprising:

obtaining inspection information of said products manufactured with said manufacturing apparatus via a physical memory medium in regards to security of an apparatus control computer storing user information;

controlling operating conditions of said manufacturing apparatus based on said inspection information;

obtaining running information of said manufacturing apparatus via an information communication network; and

determining a charge for use of said manufacturing apparatus based on said running information and inspection information.

42. (previously presented) A service method for use with an inspection apparatus for inspecting products including a semiconductor wafer, a semiconductor device, an exposure mask or a liquid crystal device, comprising:

obtaining inspection information of said products inspected with said inspection apparatus via a physical memory medium in regards to security of an apparatus control computer storing user information;

controlling operating conditions of said inspection apparatus based on said inspection information;

obtaining running information of said inspection apparatus via an information communication network; and

determining a charge for use of said inspection apparatus based on said running information and said inspection information.

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43. (currently amended) A manufacturing/inspection apparatus for manufacturing or inspecting products including a semiconductor wafer, a semiconductor device, an exposure mask or a liquid crystal device, said apparatus comprising:

a memory device for storing at least information pieces of process information including a quantity of manufactured or inspected products, accuracy information indicating a manufacturing or inspection accuracy of said products, running information indicating running conditions of said manufacturing/inspection apparatus, and calibration information indicating a calibration value required for apparatus running control at a time of manufacture or inspection of said manufacturing/inspection apparatus,

wherein said memory device is a memory medium that can be transported easily in regards to security of an apparatus control computer storing the user information.

- 44. (previously presented) A manufacturing/inspection apparatus according to claim 43, further comprising a transmitting unit provided to read and transmit the information stored in said memory device.
- 45. (previously presented) A manufacturing/inspection apparatus according to claim 44, wherein said transmitting unit is connected to a wide area communication network.
- 46. (previously presented) A manufacturing/inspection apparatus according to claim 44, wherein a charge for use of said manufacturing/inspection apparatus is set based on the information transmitted by said transmitting unit.
- 47. (previously presented) A manufacturing/inspection apparatus according to claim 43, wherein a charge for use of said manufacturing/inspection apparatus is set based on the information stored in said memory device.
- 48. (currently amended) A service method for use with a manufacturing/inspection apparatus for manufacturing or inspecting products including a semiconductor wafer, a semiconductor device, an exposure mask or a liquid crystal device, comprising:

setting a charge for use of said manufacturing/inspection apparatus based on manufacturing or inspection difficulty information of said product manufactured or inspected with said manufacturing/inspection apparatus; and

storing running information of said manufacturing/inspection apparatus in a physical memory medium in regards to security of the <u>an</u> apparatus control computer storing the user information.

49. (currently amended) A manufacturing/inspection apparatus for manufacturing or inspecting products including a semiconductor wafer, a semiconductor device, an exposure mask or a liquid crystal device, comprising:

a memory device for storing manufacturing or inspection difficulty information of said product inspected with said manufacturing/inspection apparatus in a physical memory medium in regards to security of the an apparatus control computer storing the user information; and

a transmitting unit for transmitting the running information of said manufacturing/inspection apparatus.

50. (currently amended) A service system for setting a charge for use of a manufacturing/inspection apparatus for manufacturing or inspecting products including a semiconductor wafer, a semiconductor device, an exposure mask or liquid crystal device, comprising:

a read device for reading data of a physical memory medium storing manufacturing or inspection difficulty information of said products manufactured or inspected with said manufacturing/inspection apparatus;

a receiving unit for receiving transmitted running information of said manufacturing/inspection apparatus in regards to security of an apparatus control computer storing the user information; and

an arithmetic device for setting a charge for use of said manufacturing/inspection apparatus based on said data of said physical memory medium and said running information.

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51. (previously presented) A service system according to claim 50, further comprising a transmitting unit for transmitting a charge preset by said arithmetic device.

52. (currently amended) A service system comprising:

an apparatus control computer for collecting an apparatus running information of a manufacturing/inspection apparatus including a number of sheets processed of products, the products including a semiconductor wafer, a semiconductor device, an exposure mask or a liquid crystal device manufactured or inspected with said manufacturing/inspection apparatus, product grade information including size accuracy, calibration tolerance value, alignment accuracy and position accuracy and an apparatus condition information including residue of calibration, residue of compensation, calibration condition, and calibration history;

a database for receiving via a communication network and storing said collected apparatus running information, product grade information and apparatus condition information; and a computer for extracting tuning work required for said manufacturing/inspection apparatus based on the information stored in said database,

wherein said apparatus control computer is connected to the communication network via an exclusive server, wherein said apparatus control computer transmits information to said exclusive server only via a physical medium in regards to security of the apparatus control computer storing the user information.

- 53. (previously presented) A service system according to claim 52, wherein said physical medium can be loaded and unloaded to said exclusive server with a loading mechanism to be controlled with said apparatus control computer.
- 54. (currently amended) A service system according to claim 52, wherein a GUI display connected to said <u>apparatus control</u> computer includes information pieces of at least,
 - (1) a number of sheets of wafer or mask to be processed;
 - (2) a total number of shots per wafer or mask;
- (3) a class of product grade specified with size accuracy, position accuracy and alignment accuracy;

(4) apparatus condition information defined with various residues of calibration and compensation; and

- (5) a display for charge for use of an apparatus calculated from the above information the number of sheets of wafer or mask to be processed, the total number of shots per wafer or mask, the class of product grade specified with size accuracy, position accuracy and alignment accuracy, the apparatus condition information defined with various residues of calibration and compensation, or notification of permission for use of the apparatus.
- 55. (previously presented) A service system according to claim 52, wherein a GUI display connected to said computer includes information pieces of at least,
 - (1) a number of sheets of wafer or mask to be processed;
 - (2) a total number of shots per wafer or mask;
- (3) a class of apparatus grade specified with size, accuracy, position accuracy and alignment accuracy;
- (4) an apparatus condition information defined with various residues of calibration and compensation;
 - (5) an accumulated use time of limited-life part,
 - (6) accuracy items of which deterioration is recognized with the calibration history,
 - (7) a generated error record and recovery condition,
- (8) exchange timing of the limited-life part estimated from the accumulated use time information of limited-life part,
- (9) adjustment and calibration means for the control items for which deterioration is recognized, and
 - (10) apparatus discrepancy portion estimated from such error information.
- 56. (currently amended) A service system according to claim 52, wherein the GUI display connected to said computer includes the information pieces of at least,
 - (1) a number of sheets of wafer or mask to be processed;
 - (2) a total number of shots per wafer or mask;

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- (3) a class of apparatus grade specified with size accuracy, position accuracy and alignment accuracy or the like;
- (4) an apparatus condition information defined from various residues of calibration and compensation,
 - (5) an accuracy deteriorated portion estimated from the calibration history, and
- (6) an adjustment requiring portion and adjusting method estimated from the above information pieces.